Remarks

The Examiner is thanked for a telephone interview on Monday, July 10, 2006.

Applicants submit a declaration under 37 C.F.R. § 1.132 stating that Jack Benner was not an inventor of the present claimed invention filed in May 1999 although an employee of the assignee (Noren declaration ¶4). His contribution in the published abstract in FASEB April 23, 1999, Vol. 13 was to provide protein-sequencing services to the named inventors on their request.

Applicants submit a copy of the response to a restriction requirement on the continuation-in-part application serial number 10/893,744 selecting a claim directed to a method of identifying DNA sequence elements that is asserted by the Examiner for the continuation-in-part to be patentably distinct from the present claimed invention. There is no basis therefore for a double patenting rejection. A copy of the response containing the election of claims for 10/893,744 is attached herewith.

Applicants respectfully reiterate that the cited prior art can be grouped into two categories nether of which suggest or describe the present invention.

One category relates to stop codon suppression resulting in insertion of an amino acid. Also described in this category is how selenocysteine may be incorporated into proteins in response to a UGA

stop codon in a specific sequence context (i.e. the presence of a downstream SECIS element). Nothing in this art suggests that selenocysteine might be usefully expressed on cell or virus surfaces e.g., for generating random peptide libraries on the surface of cells or viruses.

The second category relates to random peptide libraries displayed on the surface of genetic particles or packages that include viruses, cells and spores such as described in the references provided in the responses dated May 22, 2006 and June 6, 2006. Nothing in these references suggests that these random peptide libraries might contain selenocysteine residues.

The Examiner has queried the inclusion of spores and ribosomes within the scope of the present claims. While applicants traverse this rejection and reserve the opportunity to prosecute claims of broader scope in a subsequent application, the claims have been amended to specify viruses and cells.

Applicants submit a declaration from Dr. Noren (the Noren declaration) describing how: (a) the biosynthetic machinery in virus and host cells is the same, (b) the final product, namely a particle containing DNA encoding selenocysteine-containing proteins expressed on the surface of the particle, is consistent with viruses, cells and indeed anything else fitting this description; and (c) the actual mechanics for making constructs is the same regardless of the type of particle, namely a selenocysteine expression cassette fused to a surface protein as shown in Figure 4 of the specification.

Applicants respectfully submit that viruses are obligate parasites of cells. They enter the cell and utilize the cell metabolism for synthesis of proteins and nucleic acid. The fusion protein in Figure 4 could equally be a virus surface protein such as M13 coat protein pIII or a bacterial surface protein such as flagella protein (Lu et al. Biotechnology 1995, 366-72, here attached). These surface proteins serve only as carriers to present the selenocysteine-containing peptide at the surface of the genetic particle. The technology for introducing foreign DNA encoding a fusion protein into cells and consequently into viruses is well established in the art having been practiced for decades.

Summary

For the reasons set forth above, Applicants respectfully submit that this case is in condition for immediate allowance. Early and favorable consideration leading to prompt issuance of this Application is earnestly solicited.

Applicants believe that no fees are due. Please charge Deposit Account No. 14-0740 for any deficiencies.

Respectfully submitted,

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